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THEY CAME TO COLLEGE?

A Remedial/Developmental Profile of First-Time Freshmen in SREB States

Each year in Southern Regional Education Board states,* about one-third of the first-time freshmen who come to college — public and private — find themselves enrolled in at least one remedial course. Most often, the course is mathematics. Frequently, these young men and women also need extra help in reading or writing before they can begin "regular" college-level work. Among public institutions, these students are just about as likely to be enrolled at four-year colleges as they are at two-year colleges. Even the region's most selective doctoral/research universities have their share — on average, about 25 percent of the freshman class.

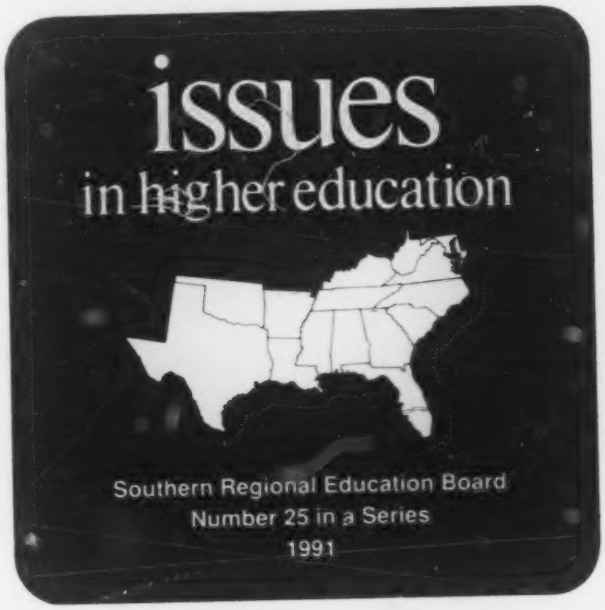
Some states have firm policies about assessing and placing new students. Freshmen in these states are more likely to be placed in remedial courses. In all SREB states, remedial students are much more likely to be black or Hispanic than white. About half of all blacks and Hispanics who go to college take at least one remedial class.

Given the large number of remedial students who enter college each year, institutions of higher education that accept such students might reasonably be expected to prepare their faculties and support staffs to fully meet the needs of this population. Yet, even though remedial students pay the same tuition and must meet the same standards for graduation, they are rarely accepted as full-fledged members of the higher education community. Teaching basic skills at the college level is still frequently viewed as a questionable function for an institution of "higher" education, and many in higher education have little faith that such a process will be successful in producing college graduates.

Taxpayers and legislators sometimes take the view that basic skills instruction in reading, writing, and mathematics is a service that has already been paid for during the elementary and secondary school years and should not be paid for again. Many parents and students see enrollment in remedial/developmental courses as an expensive delaying tactic that prolongs the educational process and denies rightful access to a college education. Yet, the fact remains that many unprepared students enter college and, without adequate remedial/developmental help, many will not graduate.

The Past

Many people probably believe that remedial/developmental work began as a response to the Civil Rights movement or the equal opportunity legislation of the 1960s and 1970s. To the contrary, colleges and universities in the United States have a long history of providing remedial education to underprepared students. In 1828, developmental studies at prestigious Yale University prompted an article in the *Yale Report* that was less than



* The SREB states are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

complimentary of Yale's practice of enrolling students who had "defective preparation" (Pintozzi, 1987). The president of Harvard University announced that "colleges should provide whatever elementary instruction the schools fail to give" so as to assure student success (Pintozzi, 1987). This view, however, was not shared by all. Later in the nineteenth century, other universities were holding what today might be described as academic "witch hunts" — hearings for students with "defective preparation." Hearings were conducted by "Committees on Doubtful Cases" which reviewed students' qualifications. These students were often described in disparaging terms, such as the "invasion of the vandal hordes" (Brier, 1984).

Prior to the 1920s, the secondary school graduate was really a rare and little tested quantity. Colleges needed to find enough qualified students who had the ability to pay. If there was to be any integrity in a postsecondary education — that is, if a college degree was to mean anything — the colleges had to find a discreet way to help their academically underprepared students.

In 1849, the University of Wisconsin introduced what has become the most popular solution — the establishment of a Department of Preparatory Studies (Boylan, 1986). By the turn of the century, 84 percent of the colleges and universities in the United States had similar preparatory schools.

As public secondary education began to take root, colleges began to shift emphasis away from teaching high school courses to developing reading and study skills (Pintozzi, 1987). By the 1920s and 1930s, remedial programs got a boost from the burgeoning influence of two-year colleges, which began to shoulder more responsibility for remedial/developmental education.

In the 1950s, remedial studies in higher education got another boost as a result of the launching of the Russian Sputnik satellite in 1959. The resulting rush to expand scientific and technical education and research opportunities focused attention on the academic gap in student achievement as colleges tried to fulfill changing expectations only to find many students underprepared for the task at hand.

In the 1960s and 1970s, the Civil Rights movement opened the door to increased numbers of minorities, women, the disabled and handicapped, and students over the traditional college age. Reconciling access and excellence became the challenge for higher education. Response to this challenge harked back to the old preparatory school concept — this time with a twist. The new programs were now using aliases, such as fundamental, remedial, special, foundation, equal opportunity, compensatory, or developmental studies. By the 1970s, nearly 90 percent of United States colleges and universities provided remedial/developmental instruction (Roueche and Snow, 1977).

The Present

Today, the quest for equal educational opportunity, an increasingly pluralistic society, and rapid changes in science, technology, and the workplace continue to affirm the importance of remedial/developmental studies at the collegiate level. The decade of the 1980s produced a series of reports calling for better high school preparation and higher college entrance standards. In 1983, the benchmark report, *A Nation At Risk*, conveyed the National Commission on Excellence in Education's recommendations concerning public education in the United States. Recommendations that were particularly applicable to remedial/developmental education included:

- Providing a solid foundation of English, math, science, and social studies in high school;
- Planned rather than haphazard teaching of study skills;
- More rigorous academic curricula with higher standards for student performance; and
- Raising entry requirements for all institutions of higher education.

These recommendations have been echoed in more recent studies of education and its relationship to the economy. The Hudson Institute's *Workforce 2000*, William T. Grant Foundation's *The Forgotten Half: Non-College Youth in America*, and similar reports identify social and demographic factors that are also affecting remedial/developmental studies. Employment expectations have risen to the point where a twelfth grade reading, writing, and mathematics level is essential for today's jobs — jobs that require skills such as synthesizing, analyzing, and communicating (Kozal, 1985; Smith and Dunn, 1985; Johnston and Packer, 1987).

As states in the SREB region consider college remedial/developmental programs, a number of nagging questions persist: Do colleges still admit unprepared applicants to help them operate financially? Are colleges that admit such students really committed to their success? Do colleges know whether their remedial programs work? Does offering remedial/developmental studies change the meaning of the associate or baccalaureate degree? Should public funds be used to pay the bill for remedial work? Who are the students that enter college underprepared? Do these students tend to be from certain ethnic or gender groups? What courses did these students take in high school? What are colleges telling high schools about the performance and remedial needs of these students? Is remedial enrollment increasing or decreasing?

Although these question are posed rhetorically, they provide an example of the kinds of questions taxpayers, educators, and policymakers should be asking of their own

institutions and states. The data presented in this and subsequent reports will be helpful as states and institutions try to answer them.

The SREB Survey

In a report on an SREB survey of college remedial/ developmental programs conducted in 1985-86, the question was posed, *"Remedial Education in College: How Widespread Is It?"* (Abraham, 1988). This report revealed that remedial courses/ programs permeated every level of public higher education. The current study is a more detailed and comprehensive follow-up of the 1985-86 survey including private higher education. Analyzing both the public and private sectors should provide a more complete picture of remedial/developmental programs in the SREB states.

The Current Study

In 1988-89, the Southern Regional Education Board conducted a remedial/ developmental survey of 826 two-year and four-year public and private institutions in SREB states. Institutions that offer a freshman-level curriculum and award the associate or baccalaureate degree were included in the survey. Seventy-three percent, or 606, of the institutions responded; response rates ranged from 50 percent for private two-year colleges to 88 percent for public four-year institutions. The major areas examined in the survey include: enrollment by race and gender; remedial course descriptions in the curriculum areas of reading, writing, and mathematics; student retention; program evaluation; course/program exit criteria; and remedial/developmental faculty.

Results of the survey on college-level remedial/developmental programs will be presented in two SREB reports to be published in 1991. This report focuses on the enrollment patterns of first-time freshmen who may need additional help in reading, writing, or mathematics. It answers these questions:

- What percentage of all first-time freshmen need at least one course in remedial/developmental reading, writing, or mathematics?
- What is the racial/ethnic background of remedial students?
- Are more males than females enrolled in remedial courses or vice versa?
- Has remedial enrollment changed since 1984, by how much has it changed, and what is the major reason for this change?

The second report will describe in some detail characteristics of the remedial/ developmental programs and faculty.

Public Institutions

Over 90 percent of the public colleges and universities surveyed had remedial/ developmental programs. More than a third of the first-time freshmen were enrolled in at least one remedial course (see Table 1). Not surprisingly, the highest percentage was in the two-year colleges (42 percent). However, only a four-point gap separated two-year institutions and four-year liberal arts/comprehensive colleges (38 percent). Public "flagship" — doctoral/–research — institutions had a smaller share of students taking at least one remedial course (24 percent), but this figure is still substantial.

A comparison of these results with the 1985-86 SREB survey of remedial/ developmental education reveals little change. On average, 36 percent of the

Table 1

Number of Responding Institutions and Percent of First-Time Freshmen in Remedial/Developmental Programs, By Type of Institution

	Two-Year		Liberal Arts/ Comprehensive		Doctoral/Research		All Institutions	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Public								
1985-86	37.3	216	37.6	99	22.3	41	35.7	356
1988-89	42.4	168	38.0	84	24.1	37	35.9	289
Private								
1988-89	47.0	13	34.0	106	13.4	6	31.6	125

NOTE: 1985-86 data are based on those students needing remediation; 1988-89 data are based on students actually enrolled in a remedial/developmental course.

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

students covered in that survey needed remedial instruction (see Table 1). Questions on the two surveys were technically different — first-time freshmen **enrolled** (1988-89 survey) versus percentage of first-time freshmen **needing** (1985-86 survey) remedial/developmental instruction — but institutions view these items in much the same way. The fact that 93 percent of public institutions — and 85 percent of all institutions — report that they have remedial/developmental programs suggests that any differences in interpretation of **enrolled** or **needing** can only be minimal at best. However, this does not mean, in fact, that all college students who need remediation were enrolled in remedial courses/ programs.

Private Institutions

Private institutions have not escaped the need to provide extra help for underprepared first-time students entering college. Of the 199 private institutions that responded to the survey, 70 percent reported that they have remedial/developmental programs. Thirty-two percent of the entering freshmen at private colleges with remedial/developmental programs were enrolled in at least one remedial course in 1988-89 (see Table 1). Private two-year colleges had the highest proportion (47 percent) of remedial students in the survey, while private doctoral/research institutions had the smallest (13 percent).

These aggregate data clearly establish a pattern of underpreparation among entering college students in both the public and private sectors. The data, however, do not indicate in which academic areas students perform well or experience difficulty. There is much to be gained at the postsecondary and secondary levels, and ultimately by students themselves, in knowing the academic areas in which student performance excels or lags behind. Without such knowledge, it is virtually impossible to provide remedies.

Subject Area Remediation Patterns

The data in Tables 2, 3, and 4 show by state and SREB region the average percentage of students needing at least one remedial course in reading, writing, or mathematics at

Table 2

Average Percent of Freshmen Needing Remedial Courses in Reading, Public Institutions, SREB States 1988-89

	Two-Year		Four-Year		All Institutions	
	Percent	Number	Percent	Number	Percent	Number
SREB States	32.3	182	18.2	118	26.7	300
Alabama	31.5	13	11.1	7	24.4	20
Arkansas	43.3	7	38.6	7	40.9	14
Florida*	23.8	18	6.0	1	22.9	19
Georgia	32.1	7	20.6	15	24.3	22
Kentucky	21.9	7	20.2	6	21.1	13
Louisiana	24.0	3	20.3	10	21.2	13
Maryland	23.0	7	22.8	6	22.9	13
Mississippi	32.0	4	16.7	7	22.3	11
North Carolina	33.3	37	22.8	11	30.9	48
Oklahoma	39.8	6	18.3	3	32.7	9
South Carolina	24.5	12	18.4	5	22.7	17
Tennessee	46.7	11	15.0	6	35.5	17
Texas	36.2	35	13.9	10	31.2	45
Virginia	29.0	14	13.5	10	22.5	24
West Virginia	41.0	1	18.8	6	22.0	7

* Florida law prohibits four-year institutions, with the execption of Florida A&M, from offering remedial/developmental courses.

NOTE: These data should be interpreted with caution because the percentage of students is affected by the number, type, and placement policy of responding institutions. Ranking of states may be misleading.

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

Table 3

Average Percent of Freshmen Needing Remedial Courses in Writing, Public Institutions, SREB States 1988-89

	Two-Year		Four-Year		All Institutions	
	Percent	Number	Percent	Number	Percent	Number
SREB States	34.0	184	18.9	137	27.5	321
Alabama	33.9	14	13.0	10	25.2	24
Arkansas	39.9	7	37.6	7	38.7	14
Florida*	25.5	18	8.0	1	24.6	19
Georgia	52.9	7	25.1	15	33.9	22
Kentucky	27.7	7	26.6	5	27.3	12
Louisiana	30.3	3	25.6	11	26.6	14
Maryland	38.6	7	23.0	6	31.4	13
Mississippi	20.3	4	21.1	8	20.8	12
North Carolina	37.0	35	17.3	11	32.3	46
Oklahoma	34.2	6	9.0	4	24.1	10
South Carolina	24.0	13	14.3	9	20.1	22
Tennessee	40.6	11	17.5	6	32.5	17
Texas	35.4	35	16.5	19	28.7	54
Virginia	30.1	16	13.6	11	23.4	27
West Virginia	52.0	1	24.0	6	28.0	7

* Florida law prohibits four-year institutions, with the execption of Florida A&M, from offering remedial/developmental courses.

NOTE: These data should be interpreted with caution because the percentage of students is affected by the number, type, and placement policy of responding institutions. Ranking of states may be misleading.

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

public institutions of higher education. Typically, the literature indicates students' academic performances follow a hierarchial order. Students are usually least prepared in mathematics, better prepared in writing and most prepared in reading. This pattern of performance holds true for public institutions in nine of the 15 SREB states. In six states, however, students' performances in the areas of reading and writing are reversed, although differences are small. Across the region, the average remediation rate for first-time freshmen in both reading and writing is 27 percent.

Thirty-eight percent of the first-time students needed assistance in mathematics. In every state the percentage of first-time freshmen needing at least one remedial course in math is significantly higher than the percentage needing reading or writing.

Perhaps more interesting is that in several states, the percentage of students needing remedial mathematics is double that for reading or writing. This raises several interesting questions. Are students that much better prepared in reading or writing than in mathematics? Are there differences in assessment that contribute to this pattern? Are students who take college-preparatory math courses their senior year of high school less likely to need remediation than students who do not take these math courses their senior year?

Effects of Mandated Assessment

Six SREB states — Arkansas, Florida, Georgia, Tennessee, Texas, and Virginia — had mandated statewide assessment and placement programs in 1988-89. These states consistently report **higher** average percentages of students needing remediation in all three curriculum areas. To illustrate, Arkansas and Oklahoma are bordering states. Arkansas has statewide assessment and placement standards; Oklahoma does not. In Arkansas, the remediation rates for reading, writing, and mathematics are, respectively, 41, 39, and 59 percent and, by comparison, in Oklahoma 33, 24, and 38 percent, respectively. While several factors might help explain these differences, including which institutions participated in the survey or the use of different placement standards, the presence or absence of statewide standards for admission and placement appears

Table 4

Average Percent of Freshmen Needing Remedial Courses in Mathematics, Public Institutions, SREB States 1988-89

	Two-Year		Four-Year		All Institutions	
	Percent	Number	Percent	Number	Percent	Number
SREB States	46.9	188	27.3	142	38.5	330
Alabama	45.0	13	19.5	10	33.9	23
Arkansas	65.0	7	52.1	7	58.6	14
Florida*	46.8	18	9.0	1	44.8	19
Georgia	51.9	7	31.3	15	37.8	22
Kentucky	47.4	7	37.3	6	42.8	13
Louisiana	54.7	3	45.6	11	47.6	14
Maryland	46.3	7	25.6	7	35.9	14
Mississippi	38.0	4	26.1	8	30.1	12
North Carolina	41.3	37	20.4	14	35.5	51
Oklahoma	51.6	7	15.3	4	38.4	11
South Carolina	31.5	13	25.6	8	29.3	21
Tennessee	66.7	11	28.0	6	53.1	17
Texas	51.9	37	25.2	19	42.8	56
Virginia	36.6	16	17.8	11	28.9	27
West Virginia	69.0	1	40.3	7	43.9	8

* Florida law prohibits four-year institutions, with the execption of Florida A&M, from offering remedial/developmental courses.

NOTE: These data should be interpreted with caution because the percentage of students is affected by the number, type, and placement policy of responding institutions. Ranking of states may be misleading.

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

to be the most significant variable. The higher percentages of remedial students in states with mandated assessments suggest that the percentages shown in Tables 2, 3 and 4 may underestimate the magnitude of the problem for states without statewide mandated standards and data collection efforts.

States that have mandated statewide assessment and placement standards are more likely to engage in data collection efforts, officially or unofficially. Tennessee, for example, has one of the most comprehensive mandated data collection efforts in the region and country. The percentage of Tennessee students needing remediation in reading (36 percent), writing (33 percent), and mathematics (53 percent) are among the highest in the SREB states.

Remedial Enrollment by Race and Gender

Institutions routinely monitor changes in students' profiles (race, gender, age, economic status, etc.) to fully understand how the educational process impacts different groups and to provide quality instruction and services. A review of literature, however, revealed very little in the way of comprehensive research on the profiles of remedial students. The SREB study offers some insight, although its inquiry is limited to students' race and gender.

Remedial enrollment by race or gender may be analyzed two ways, "within-group" and "between-group" analyses. Analysis within a single group limits proportional representation to that group. For example, of those Asians who enter college, what percent need to take remedial courses? In contrast, analysis between groups looks at what proportion of all remedial students are represented by each race or gender group. In the typical remedial classroom, what percentage of the students are likely to be black or white, male or female? For the purpose of this study, "within-group" analysis is used to discuss race and gender differences.

Race and Ethnicity

Entering college students who are black or Hispanic are much more likely to be enrolled in remedial/

developmental courses than students of any other race or ethnic group. Among all institutions, 53 percent of the black first-time entering students and 50 percent of the Hispanic students were enrolled in at least one remedial reading, writing, or mathematics course (see Table 5).

The remedial enrollment rates for black students ranged from 50 percent at private colleges to almost 60 percent at public liberal arts/comprehensive colleges. Black students attending public liberal arts/comprehensive colleges are twice as likely as other race/ethnic groups to be enrolled in a remedial/developmental course. At public doctoral/research institutions, this percentage increases to more than three times the rate of white students and to 10 times the rate of Asian/Pacific Islanders. Even in private institutions, the remedial enrollment rate for black students — 50 percent — is 10 percentage points higher than the nearest race/ethnic group (non-resident aliens).

The remedial enrollment rate of Hispanic students is very similar to that of black students for the category "all public institutions." On two-year college campuses, however, Hispanic students (57 percent) are even more likely than black students (52 percent) to be enrolled in remedial courses. Rates for Hispanic students fall significantly at liberal arts/comprehensive colleges (31 percent) and doctoral/research institutions (6 percent).

Among the other race/ethnic groups (non-resident aliens, American Indian/Alaska Natives, Asian/Pacific Islanders, and whites) about one in four first-time freshmen was enrolled in remedial/developmental reading, writing, or mathematics. Of particular interest are the non-resident aliens and American Indian/Alaska Natives, whose percentage of first-time entering freshman enrollment in remedial courses is higher at private institutions.

Two groups, non-resident alien and black students, have higher percentages of students enrolled in remedial courses in public liberal arts/comprehensive colleges than public two-year colleges. This might seem especially surprising for black students, because it contradicts the way most people think about the selectivity of public institutions. Two-year colleges are generally viewed as the least selective — "open door" — institutions and doctoral/research institutions the most selective — "flagship" — institutions.

Several factors might account for this "flip-flop." First, these data may actually be indicative of the overall level of preparation of entering college students, or the fact that admissions criteria are not really that different between the two levels. Second, without knowing the assessment and placement policy at each institution, it is difficult to know whether all entering students are being assessed or only selected groups of students. For example,

Table 5

Enrollment of Full-Time Freshmen and Percent in Remedial/Developmental Programs, By Race and Ethnic Groups, 1988-89

	Non Resident Aliens		Black		Hispanic*		White		All Races	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Public										
Two-Year	892	27.1	10,330	52.4	8,783	56.9	76,880	33.5	102,132	42.5
Liberal Arts/ Comprehensive	316	29.1	9,056	59.0	386	31.1	30,459	29.8	53,870	35.2
Doctoral/Research	403	8.3	8,207	49.8	761	6.3	46,745	17.0	73,772	24.0
All Public	1,611	22.8	27,593	53.8	9,930	52.0	154,084	27.7	229,774	34.8
All Private	378	40.5	5,415	49.6	859	28.1	9,953	21.1	25,988	33.8
All Institutions	1,989	26.1	33,008	53.1	10,789	50.1	164,037	27.3	255,762	34.7

*Includes Hispanics of all nationalities and races.

NOTE: The number of institutions that respond for each race-institution type category varies. As a result, the total category figures reflect only the sum of responding institutions.
A more detailed breakdown is available from the Southern Regional Education Board.

SOURCE: SREB survey of remedial education at institutions of higher education 1989.

at two-year institutions, very different results could be obtained under a policy that stipulates that all first-time freshmen be assessed versus one that stipulates that only students bound for four-year programs be assessed. Finally, the vast majority of the country's historically black colleges and universities are located in SREB states. Therefore, black students in the region have a greater opportunity to begin their college careers at the four-year college level.

Table 6

Enrollment of Full-Time Freshmen and Percent in Remedial/Developmental Programs, by Gender 1988-89

	Male		Female	
	Total	Percent	Total	Percent
Public				
Two-year	49,013	32.4	57,957	36.7
Liberal Arts/ Comprehensive	21,124	34.7	27,710	34.1
[illegible]/Research	25,292	17.4	25,860	21.6
All Public	95,429	28.9	111,527	32.6
All Private	10,454	33.2	12,736	31.2
All Institutions	105,883	29.4	124,263	32.4

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

Gender

Gender differences are small, regardless of the type of institution attended. The largest percentage difference is five percentage points at public two-year colleges — 32 percent male versus 37 percent female — and public doctoral research institutions — 17 percent male versus 22 percent female (see Table 6). Between public and private institutions, females have a slightly higher remedial enrollment rate at public institutions — 33 percent versus 31 percent — and males a slightly higher rate at private institutions — 33 percent versus 29 percent. The higher remedial rates for females than males lead to a question on whether this reflects the typical performance pattern of females on most math skills tests.

The Trend in Remedial Enrollment

Has remedial enrollment in the SREB states increased, decreased, or remained about the same since 1984? The data in Table 7 describe a trend toward increases in remedial/developmental enrollments over the past few years. Responding institutions were three times more likely to report an increase than a decrease — 55 percent experienced a rise in remedial enrollment while only 16 percent experienced a fall in enrollment. About 30 percent of the institutions surveyed reported no change in remedial/developmental enrollment over the four-year period. Nearly 60 percent of the public institutions reported increased enrollment, compared to about 40 percent of the private institutions.

Table 7

Percent Change Since 1984 in Overall Remedial/Developmental Enrollment, By Type of Institution, 1988-89

	Public Two-Year (N=241)		Public 4-Year Liberal Art/Comp (N=97)		Public 4-Year Doctoral/Research (N=39)		All Public (N=377)		All Private (N=140)		All Institutions (N=517)	
	Number of Responding Institutions	Percent	Number of Responding Institutions	Percent	Number of Responding Institutions	Percent	Number of Responding Institutions	Percent	Number of Responding Institutions	Percent	Number of Responding Institutions	Percent
Increase	142	67.0	43	50.6	14	38.9	199	59.8	44	38.9	243	54.5
Decrease	17	8.0	16	18.8	11	30.6	44	13.2	25	22.1	69	15.5
No Change	53	25.0	26	30.6	11	30.6	90	27.0	44	38.9	134	30.0
Percent responding to item	88.1		87.5		92.1		88.3		80.7		86.3	

SOURCE: SREB Survey of remedial education at institutions of higher education, 1989.

Table 8

Median Percent Increase or Decrease Since 1984 in Remedial/Developmental Enrollment, by Type of Institution, 1988-89

	Increase		Decrease	
	Number of Responding Institutions	Median Percent Change	Number of Responding Institutions	Median Percent Change
Public Two-Year N = 241	113	30.0	12	14.5
Public Liberal Art/Comprehensive N = 97	33	23.0	10	26.5
Public Doctoral/Research N = 39	11	20.0	11	22.0
All Public N = 377	157	28.0	33	22.0
All Private N = 140	26	19.0	18	17.0
All Institions N = 517	183	27.0	51	20.0

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

Among the different types of public institutions, the perceived "selectivity hierarchy" holds true to form. Two-year colleges reported the largest increase in remedial enrollment (67 percent) and four-year doctoral/research institutions the smallest (39 percent). Conversely, four-year doctoral/research institutions were the most likely to report a decrease in remedial enrollment (31 percent) and two-year colleges the least likely (8 percent).

The median reported increase was 27 percent from 1984 to 1988. Thus, of the 243 institutions that experienced an increase in remedial/developmental enrollment, half had increases of less than 27 percent and half had increases of greater than 27 percent. Conversely, the median reported decrease was 20 percent over this same period. The median percent change for these institutions underscores the differences between the public (less selective) and private (more selective) sectors. The median percent change for all public institutions is 28 percent and the median percent change for private institutions is 19 percent (see Table 8).

Why the Increase?

What reasons do institutions cite for the changes that have taken place? In reading, writing, and mathematics, the number one reason identified by institutions that experienced an increase in remedial enrollment was an *overall increase in enrollment* (see Table 9). In other words, as

Table 9

Reasons for Increases in Remedial Enrollment 1988-89

Rank	Reading (N = 170)	Writing (N = 194)	Math (N = 219)
1	increase enrollment		
2	more accurate assessment		
3	change in placement policy		
	mandatory college preparation placement rules	mandatory college preparation placement rules	
		poor preparation in public schools	

SOURCE: SREB survey of remedial education at institututions of higher education, 1989.

Table 10

Reasons for Decreases in Remedial Enrollment 1988-89

Rank	Reading (N = 79)	Writing (N = 76)	Math (N = 55)
1	better background of students entering college		tighter controls on enrollment
2	tighter controls on enrollment		better background of students entering college
3	change in placement policy	change in cut-off scores	decrease in enrollment
	increase in enrollment		

SOURCE: SREB survey of remedial education at institutions of higher education, 1989.

enrollments grew overall, the enrollments of less well prepared students grew proportionately. The second most frequently cited reason was *more accurate assessment* — for most institutions this meant more specificity or uniformity in the type of assessment being administered. The third reason was a *change in placement policy*. This probably reflects a tightening of the admissions and placement requirements or the introduction of new entry and placement standards. Also tied for third in frequency for reading and mathematics was *mandatory college preparation placement rules*. *Poor preparation in public schools*, tied for third in frequency for mathematics, was in the top five responses among all curriculum categories.

As shown in Table 10, *better background of students entering college* was the number one reason for those institutions that experienced a decrease in remedial enrollment in reading and writing. It was the number two reason for the "mathematics" category. Conversely, *tighter controls on enrollment* was the number one response for the "mathematics" category and the number two response for the "reading" and "writing" categories. The third most frequently cited reason for "reading" was *change in placement policy*; for "writing" *change in cut-off scores*; and for "mathematics" *decrease in enrollment*.

Implications

The Southern Regional Education Board established as one its goals for education in the year 2000 that, "4 of every 5 students entering college will be ready to begin college-level work." To reach that goal, the current rate of more than a third of the students enrolled in remedial courses would have to be cut nearly in half. Yet, findings in this report show that the trend for most colleges in recent years has been an increase in remedial enrollment.

The findings of this study raise several issues that have important implications for educators and students at the secondary and postsecondary levels, as well as governmental leaders.

• Asking the Right Questions

In an earlier SREB report on remedial/developmental education, the question was posed, "Should higher education institutions provide instruction to students who are not prepared for college-level work?" (Abraham, 1988). It seems this question is moot. The fact is remedial/developmental instruction **is being** provided at the collegiate level and provided on a very large scale. Perhaps a more appropriate question that educators, elected officials, and the public need to ask is, "How can higher education institutions provide the best instruction to students who are not prepared for college-level work?"

• How Much Remediation Is Enough

History indicates that remedial/developmental education has been around for a long time and in all likelihood will be around for many years to come. The question is not "whether," but "how much" remediation is appropriate at the collegiate level. Should the goal be to reduce the number of students needing remedial help to 15 percent? To 10 percent? To zero percent? Should the goal be different for different types of institutional, ethnic, or gender groups? To answer these and similar questions, states and institutions must be willing and able to conduct research that goes beyond the SREB study. This can best be achieved through state and institutional requirements that stipulate the collection, analysis, and distribution of research results. Only by designing and conducting institutional and state-level research on remedial/developmental students and programs can educators and policymakers develop the information necessary to design and implement effective policy.

• Variation in the Rate of Remedial/Developmental Placement

The variation found in the remediation rates between states and institutions that have or do not have consistent assessment and placement policies has important implications. The variations suggest that states and institutions without such policies probably are overlooking a significant number of students who need remedial help and who should not be admitted unless colleges are committed to their success. Firm and well publicized standards would put all prospective college students on notice about the expectations of the state or institution. Firm standards would also help clarify for secondary schools the knowledge and skills students need before they can begin college-level work.

Variation in the remediation rates is also a reminder of the impact different standards and strategies for remedying academic deficiencies can have on the number and rate at which students are placed into remedial/developmental programs. As a result, any comparisons between states or institutions should take into account what the policies are in the state or institution. For example, the tests and cut-off scores used in Tennessee to place students in remedial studies may not necessarily be the same as those used in Georgia or Texas to place students. Further, a strategy that forbids remedial studies at one type of institution will likely have a profound impact on the flow of students into and out of the higher educational system. A policy that would limit remedial students to two-year institutions, for example, would need to be weighed, in part, against existing research showing that students are more likely to complete a four-year degree if they begin their college careers at a four-year college.

Finally, remediation rates are not necessarily comparable across states or institutions, or even among institutions in the same state. For example, a student who is accepted at two different institutions may find that he or she will be allowed to begin college-level work at one institution, while the other college would require a remedial program of study. This happens frequently because states and institutions have different standards and different definitions of college-level work. Should institutions — particularly public institutions within the state — be allowed to define college-level work differently? If so, should states require public institutions to adhere to a minimum level of academic competence — a "floor" — below which no institution will give college-level credit.

• Issues of Race

The remedial enrollment rate for black and Hispanic students — about 50 percent — is consistently one and one-half to two times that of white students. As a result, remedial/developmental policies have a dramatic and disproportionate impact on these students. Over the next 10 years, there will be a significant rise in the minority school-age population in many school districts. At the same time, projected global competition and advances in technology will require a more highly skilled and knowledgeable work force, projections are that the work force will be increasingly minority and female. State leaders cannot afford haphazard remedial education policies or poorly designed, ineffective, and wasteful remedial programs.

• The High School Connection

Higher education has often been accused of washing its hands of many problems by blaming them on the high schools. In this instance, however, a strong case can be made that high schools are not providing adequate preparation to allow entering students to begin college-level work. For example, it is unlikely that a significant portion of black and Hispanic students receive the kind of academic guidance early in their high school careers that will insure they take the "right" courses and begin college adequately prepared.

• High School/College Collaboration

The data in this report have many implications for high school and college leaders. Policy should require that remedial data be presented to school superintendents and principals. College chief executive officers should seek out these individuals in a spirit of cooperation and encourage effective school/college collaborations. At the very least, such collaborations should bring together college and high school faculty and encourage dialogue concerning just how these students might be appropriately prepared and the individual roles of schools and colleges.

• A Moral and Ethical Issue

College-level remediation can quickly become a moral and ethical issue. When institutions admit students who are underprepared — students who they know are not ready to begin "regular" college courses — they need to ask some tough questions of themselves. Why are the students being admitted? What are the institution's expectations for these students? What commitment is the institution prepared to make in return for the students' tuition and fees? And finally, what actions will the institution take to make sure these commitments are met?

Are students told of the success rate of individuals like themselves? This question brings into focus the moral and ethical dilemma institutions face. For example, while it may not be morally wrong for institutions to admit underprepared students, is it morally and ethically wrong for institutions to admit students who are not informed, or are misinformed, of their chances of success?

Conclusion

The issues raised in this study are serious. So serious that actions must be taken now to reduce the remedial enrollment rate for higher education, and especially to have any chance of reaching the goal set by SREB for the year 2000 — 80 percent of entering college students ready to begin college-level work. The strategies employed by states and institutions to reach this goal will vary — but accept the goal they must. The challenge is to accomplish the task without reducing standards, losing quality, or permanently curtailing access to postsecondary education.

The remediation rates observed in SREB states may seem like an indictment of higher education standards in the region. They might, but they reflect national trends as well. Results from a National Center for Education Statistics report indicate that the states in the SREB region are typical of states elsewhere. Nationally, the remediation rate for public institutions is 32 percent; in the Northeast and West the rates are 33 and 34 percent, respectively. These rates are only slightly below the rate for the SREB region. Although the problem is national in scope, strategies and solutions to address the issue must come from the district, institutional, and state levels.

A second report on the 1988-89 SREB survey will provide more detailed information about remedial/developmental placement policy and standards; the number of courses taught and the credit given; the organizational approach; student retention; program exit criteria and evaluation; and the kind of faculty who teach in these programs.

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